



# SEQUENCE LISTING

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<120> siRNA Libraries Optimized for Predetermined  
Protein Families

<130> 016556-003610US

<140> US 10/776,399

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<150> US 60/446,714

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<170> PatentIn version 2.1

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<210> 76  
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<220>  
 <223> Description of Artificial Sequence:variant 8  
 nuclear hormone receptor family zinc finger domain

<400> 82  
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<210> 83  
 <211> 45  
 <212> DNA  
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<220>  
 <223> Description of Artificial Sequence:variant 9  
 nuclear hormone receptor family zinc finger domain

<400> 83  
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<210> 84  
 <211> 15  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:variant 9  
 nuclear hormone receptor family zinc finger domain

<400> 84  
 Tyr Gly Val Ala Ser Cys Glu Ala Cys Lys Ala Phe Phe Lys Arg  
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<210> 85  
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 <223> Description of Artificial Sequence:variant 9  
         nuclear hormone receptor family zinc finger domain  
  
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 <210> 86  
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 <211> 45  
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         nuclear hormone receptor family zinc finger domain  
  
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 <210> 88  
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 <400> 88  
 Tyr Gly Val Trp Ser Cys Glu Gly Cys Lys Ala Phe Phe Lys Arg  
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 <211> 45  
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<220>  
 <223> Description of Artificial Sequence:variant 9  
         nuclear hormone receptor family zinc finger domain  
  
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 <210> 90  
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         nuclear hormone receptor family zinc finger domain  
  
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 1                   5                   10                   15  
  
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 <211> 48  
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 <223> Description of Artificial Sequence:variant 1  
         tyrosine kinase family portion of catalytic domain  
  
 <400> 91  
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 <210> 92  
 <211> 16  
 <212> PRT  
 <213> Artificial Sequence  
  
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 <223> Description of Artificial Sequence:variant 1  
         tyrosine kinase family portion of catalytic domain  
  
 <400> 92  
 Val Pro Ile Ile His Arg Asp Leu Lys Ser Ser Asn Ile Leu Ile Leu  
 1                   5                   10                   15  
  
 <210> 93  
 <211> 48  
 <212> DNA  
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 <220>  
 <223> Description of Artificial Sequence:variant 1  
         tyrosine kinase family portion of catalytic domain  
  
 <400> 93  
 gtgcccattc tgcaccggga cctcaagtcc agcaacattt tgctactt 48

<210> 94  
<211> 16  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:variant 1  
tyrosine kinase family portion of catalytic domain

<400> 94  
Val Pro Ile Leu His Arg Asp Leu Lys Ser Ser Asn Ile Leu Leu Leu  
1 5 10 15

<210> 95  
<211> 48  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:variant 1  
tyrosine kinase family portion of catalytic domain

<400> 95  
gtgcccattcc tgcaccggga cctcaagtcc agcaacattt tgctactt 48

<210> 96  
<211> 16  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:variant 1  
tyrosine kinase family portion of catalytic domain

<400> 96  
Val Pro Ile Leu His Arg Asp Leu Lys Ser Ser Asn Ile Leu Leu Leu  
1 5 10 15

<210> 97  
<211> 48  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:variant 2  
tyrosine kinase family portion of catalytic domain

<400> 97  
catgggtatgg tgcataaaaa cctgggtgcc cgaaacgtgc tactcaag 48

<210> 98  
<211> 16  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:variant 2  
tyrosine kinase family portion of catalytic domain

<400> 98  
His Gly Met Val His Arg Asn Leu Ala Ala Arg Asn Val Leu Leu Lys  
1 5 10 15

<210> 99  
<211> 48  
<212> DNA  
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<220>  
<223> Description of Artificial Sequence:variant 2  
tyrosine kinase family portion of catalytic domain

<400> 99  
aagaattgca tccaccggga cgtggcagcg cgtaacgtgc tggtgacc 48

<210> 100  
<211> 16  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:variant 2  
tyrosine kinase family portion of catalytic domain

<400> 100  
Lys Asn Cys Ile His Arg Asp Val Ala Ala Arg Asn Val Leu Leu Thr  
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<210> 101  
<211> 48  
<212> DNA  
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<220>  
<223> Description of Artificial Sequence:variant 2  
tyrosine kinase family portion of catalytic domain

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<210> 102  
<211> 16  
<212> PRT  
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<220>  
<223> Description of Artificial Sequence:variant 2  
tyrosine kinase family portion of catalytic domain

<400> 102  
Ile Asn Cys Val His Arg Asp Ile Ala Val Arg Asn Ile Leu Val Ala  
1 5 10 15

<210> 103  
 <211> 48  
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       tyrosine kinase family portion of catalytic domain  
  
 <400> 103  
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 <210> 104  
 <211> 16  
 <212> PRT  
 <213> Artificial Sequence  
  
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 <223> Description of Artificial Sequence:variant 3  
       tyrosine kinase family portion of catalytic domain  
  
 <400> 104  
 Met Asn Tyr Val His Arg Asp Leu Arg Ala Ala Asn Ile Leu Val Gly  
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 <211> 48  
 <212> DNA  
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 <220>  
 <223> Description of Artificial Sequence:variant 3  
       tyrosine kinase family portion of catalytic domain  
  
 <400> 105  
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 <210> 106  
 <211> 16  
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 <213> Artificial Sequence  
  
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       tyrosine kinase family portion of catalytic domain  
  
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 1                  5                  10                  15  
  
 <210> 107  
 <211> 48  
 <212> DNA  
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<220>  
 <223> Description of Artificial Sequence:variant 3  
         tyrosine kinase family portion of catalytic domain  
  
 <400> 107  
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 <211> 16  
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         tyrosine kinase family portion of catalytic domain  
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 <210> 109  
 <211> 48  
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 <223> Description of Artificial Sequence:variant 3  
         tyrosine kinase family portion of catalytic domain  
  
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 <210> 110  
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 <210> 111  
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 <212> DNA  
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 <220>  
 <223> Description of Artificial Sequence:variant 3  
         tyrosine kinase family portion of catalytic domain  
  
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<210> 112  
 <211> 16  
 <212> PRT  
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 <220>  
 <223> Description of Artificial Sequence:variant 3  
       tyrosine kinase family portion of catalytic domain  
  
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<210> 113  
 <211> 47  
 <212> DNA  
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<220>  
 <223> Description of Artificial Sequence:variant 3  
       tyrosine kinase family portion of catalytic domain

<400> 113  
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47

<210> 114  
 <211> 16  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:variant 3  
       tyrosine kinase family portion of catalytic domain

<400> 114  
 Arg Asn Tyr Ile His Arg Asp Leu Arg Ala Ala Asn Ile Leu Val Ser  
 1                  5                  10                  15

<210> 115  
 <211> 48  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:variant 3  
       tyrosine kinase family portion of catalytic domain

<400> 115  
 aagaactaca ttcaccggga cctgcgagca gctaattgttc tggctctcc

48

<210> 116  
 <211> 16  
 <212> PRT  
 <213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:variant 3  
tyrosine kinase family portion of catalytic domain

<400> 116  
Lys Asn Tyr Ile His Arg Asp Leu Arg Ala Ala Asn Val Leu Val Ser  
1 5 10 15

<210> 117  
<211> 48  
<212> DNA  
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<220>  
<223> Description of Artificial Sequence:variant 3  
tyrosine kinase family portion of catalytic domain

<400> 117  
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<210> 118  
<211> 16  
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<220>  
<223> Description of Artificial Sequence:variant 3  
tyrosine kinase family portion of catalytic domain

<400> 118  
Arg Asn Tyr Ile His Arg Asp Leu Arg Ala Ala Asn Ile Leu Val Ser  
1 5 10 15

<210> 119  
<211> 47  
<212> DNA  
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<220>  
<223> Description of Artificial Sequence:variant 4  
tyrosine kinase family portion of catalytic domain

<400> 119  
ctgcattttg tgcaccggga cctggccaca cgcaactgtc tagtggg 47

<210> 120  
<211> 16  
<212> PRT  
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<220>  
<223> Description of Artificial Sequence:variant 4  
tyrosine kinase family portion of catalytic domain

<400> 120  
Leu His Phe Val His Arg Asp Leu Ala Thr Arg Asn Cys Leu Val Gly  
1 5 10 15

<210> 121  
 <211> 48  
 <212> DNA  
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 <220>  
 <223> Description of Artificial Sequence:variant 4  
         tyrosine kinase family portion of catalytic domain  
  
 <400> 121  
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 <210> 122  
 <211> 16  
 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence:variant 4  
         tyrosine kinase family portion of catalytic domain  
  
 <400> 122  
 Leu Asn Phe Val His Arg Asp Leu Ala Thr Arg Asn Cys Leu Val Gly  
 1                  5                  10                  15  
  
  
 <210> 123  
 <211> 48  
 <212> DNA  
 <213> Artificial Sequence  
  
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 <223> Description of Artificial Sequence:variant 4  
         tyrosine kinase family portion of catalytic domain  
  
 <400> 123  
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 <210> 124  
 <211> 16  
 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence:variant 4  
         tyrosine kinase family portion of catalytic domain  
  
 <400> 124  
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 1                  5                  10                  15  
  
  
 <210> 125  
 <211> 48  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:variant 4  
         tyrosine kinase family portion of catalytic domain  
  
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 <210> 126  
 <211> 16  
 <212> PRT  
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 <220>  
 <223> Description of Artificial Sequence:variant 4  
         tyrosine kinase family portion of catalytic domain  
  
 <400> 126  
 Arg Gly Leu Val His Arg Asp Leu Ala Thr Arg Asn Leu Leu Leu Ala  
 1                   5                   10                   15  
  
 <210> 127  
 <211> 48  
 <212> DNA  
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 <223> Description of Artificial Sequence:variant 4  
         tyrosine kinase family portion of catalytic domain  
  
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 <211> 16  
 <212> PRT  
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 <223> Description of Artificial Sequence:variant 4  
         tyrosine kinase family portion of catalytic domain  
  
 <400> 128  
 Lys Arg Tyr Ile His Arg Asp Leu Ala Thr Arg Asn Ile Leu Val Glu  
 1                   5                   10                   15  
  
 <210> 129  
 <211> 48  
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         tyrosine kinase family portion of catalytic domain  
  
 <400> 129  
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<210> 130  
 <211> 16  
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       tyrosine kinase family portion of catalytic domain  
  
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<210> 131  
 <211> 48  
 <212> DNA  
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<220>  
 <223> Description of Artificial Sequence:variant 4  
       tyrosine kinase family portion of catalytic domain

<400> 131  
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<210> 132  
 <211> 16  
 <212> PRT  
 <213> Artificial Sequence

<220>  
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       tyrosine kinase family portion of catalytic domain

<400> 132  
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 1                  5                  10                  15

<210> 133  
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<220>  
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       tyrosine kinase family portion of catalytic domain

<400> 133  
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<210> 134  
 <211> 16  
 <212> PRT  
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<220>  
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 tyrosine kinase family portion of catalytic domain

<400> 134  
 His His Val Val His Lys Asp Leu Ala Thr Arg Asn Val Leu Val Tyr  
 1 5 10 15

<210> 135  
 <211> 48  
 <212> DNA  
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<220>  
 <223> Description of Artificial Sequence:variant 4  
 tyrosine kinase family portion of catalytic domain

<400> 135  
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<210> 136  
 <211> 16  
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<220>  
 <223> Description of Artificial Sequence:variant 4  
 tyrosine kinase family portion of catalytic domain

<400> 136  
 Arg Lys Phe Val His Arg Asp Leu Ala Thr Arg Asn Cys Leu Val Gly  
 1 5 10 15

<210> 137  
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 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:variant 5  
 tyrosine kinase family portion of catalytic domain

<400> 137  
 aagaagcttg tgcaccgcca cctggccgcc cgcaacatcc tgggtctca 48

<210> 138  
 <211> 16  
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<220>  
 <223> Description of Artificial Sequence:variant 5  
 tyrosine kinase family portion of catalytic domain

<400> 138  
 Lys Lys Leu Val His Arg Asp Leu Ala Ala Arg Asn Ile Leu Val Ser  
 1 5 10 15

<210> 139  
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       tyrosine kinase family portion of catalytic domain  
  
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       tyrosine kinase family portion of catalytic domain  
  
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 1                  5                  10                  15  
  
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       tyrosine kinase family portion of catalytic domain  
  
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       tyrosine kinase family portion of catalytic domain  
  
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 <210> 143  
 <211> 48  
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<220>  
 <223> Description of Artificial Sequence:variant 5  
 tyrosine kinase family portion of catalytic domain

<400> 143  
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<210> 144  
 <211> 16  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:variant 5  
 tyrosine kinase family portion of catalytic domain

<400> 144  
 His Asp Tyr Ile His Arg Asp Leu Ala Ala Arg Asn Val Leu Leu Asp  
 1 5 10 15

<210> 145  
 <211> 48  
 <212> DNA  
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<220>  
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 tyrosine kinase family portion of catalytic domain

<400> 145  
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<210> 146  
 <211> 16  
 <212> PRT  
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<220>  
 <223> Description of Artificial Sequence:variant 5  
 tyrosine kinase family portion of catalytic domain

<400> 146  
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 1 5 10 15

<210> 147  
 <211> 48  
 <212> DNA  
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<220>  
 <223> Description of Artificial Sequence:variant 5  
 tyrosine kinase family portion of catalytic domain

<400> 147  
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<210> 148  
 <211> 16  
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       tyrosine kinase family portion of catalytic domain  
  
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 1                  5                  10                  15  
  
 <210> 149  
 <211> 48  
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 <223> Description of Artificial Sequence:variant 5  
       tyrosine kinase family portion of catalytic domain  
  
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 <210> 150  
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       tyrosine kinase family portion of catalytic domain  
  
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 1                  5                  10                  15  
  
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 <223> Description of Artificial Sequence:variant 5  
       tyrosine kinase family portion of catalytic domain  
  
 <400> 151  
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 <210> 152  
 <211> 16  
 <212> PRT  
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<220>  
 <223> Description of Artificial Sequence:variant 5  
 tyrosine kinase family portion of catalytic domain

<400> 152  
 Lys Lys Cys Ile His Arg Asp Leu Ala Ala Arg Asn Val Leu Val Thr  
 1 5 10 15

<210> 153  
 <211> 48  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:variant 5  
 tyrosine kinase family portion of catalytic domain

<400> 153  
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<210> 154  
 <211> 16  
 <212> PRT  
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<220>  
 <223> Description of Artificial Sequence:variant 5  
 tyrosine kinase family portion of catalytic domain

<400> 154  
 Gln Lys Cys Ile His Arg Asp Leu Ala Ala Arg Asn Val Leu Val Thr  
 1 5 10 15

<210> 155  
 <211> 48  
 <212> DNA  
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<220>  
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 tyrosine kinase family portion of catalytic domain

<400> 155  
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<210> 156  
 <211> 16  
 <212> PRT  
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<220>  
 <223> Description of Artificial Sequence:variant 5  
 tyrosine kinase family portion of catalytic domain

<400> 156  
 Gln Lys Cys Ile His Arg Asp Leu Ala Ala Arg Asn Val Leu Val Thr  
 1 5 10 15

<210> 157  
 <211> 48  
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 <223> Description of Artificial Sequence:variant 5  
       tyrosine kinase family portion of catalytic domain  
  
 <400> 157  
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 <210> 158  
 <211> 16  
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 <223> Description of Artificial Sequence:variant 5  
       tyrosine kinase family portion of catalytic domain  
  
 <400> 158  
 Gln Lys Cys Ile His Arg Asp Leu Ala Ala Arg Asn Val Leu Val Thr  
 1                  5                  10                  15  
  
  
 <210> 159  
 <211> 48  
 <212> DNA  
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 <223> Description of Artificial Sequence:variant 5  
       tyrosine kinase family portion of catalytic domain  
  
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<210> 166  
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       tyrosine kinase family portion of catalytic domain

<400> 167  
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<210> 168  
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<220>  
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<400> 168  
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<400> 169  
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<210> 170  
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<220>  
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 tyrosine kinase family portion of catalytic domain

<400> 170  
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 tyrosine kinase family portion of catalytic domain

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 tyrosine kinase family portion of catalytic domain

<400> 172  
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<210> 173  
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<210> 175  
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<220>  
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 tyrosine kinase family portion of catalytic domain

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<220>  
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 tyrosine kinase family portion of catalytic domain

<400> 180  
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<210> 181  
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 tyrosine kinase family portion of catalytic domain

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<210> 182  
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 tyrosine kinase family portion of catalytic domain

<400> 182  
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<210> 183  
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<220>  
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 tyrosine kinase family portion of catalytic domain

<400> 183  
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<210> 184  
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<210> 185  
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<210> 186  
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<220>  
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<400> 186  
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<400> 187  
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<220>  
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tyrosine kinase family portion of catalytic domain

<400> 188  
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<210> 189  
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tyrosine kinase family portion of catalytic domain

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<210> 190  
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tyrosine kinase family portion of catalytic domain

<400> 190  
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<210> 191  
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tyrosine kinase family portion of catalytic domain

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<210> 192  
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<220>  
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tyrosine kinase family portion of catalytic domain

<400> 192  
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<210> 193  
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<210> 198  
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<400> 198  
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<210> 199  
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<210> 201  
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<400> 201  
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<210> 202  
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         tyrosine kinase family portion of catalytic domain  
  
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<400> 203  
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<210> 204  
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<220>  
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<400> 204  
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<210> 205  
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<400> 205  
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<210> 206  
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<220>  
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 tyrosine kinase family portion of catalytic domain

<400> 206  
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<210> 207  
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<220>  
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 tyrosine kinase family portion of catalytic domain

<400> 207  
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<210> 208  
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<220>  
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 tyrosine kinase family portion of catalytic domain

<400> 208  
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<210> 209  
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<220>  
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 tyrosine kinase family portion of catalytic domain

<400> 209  
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<210> 210  
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<220>  
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 tyrosine kinase family portion of catalytic domain

<400> 210  
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<210> 211  
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       tyrosine kinase family portion of catalytic domain  
  
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 <400> 213  
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 <210> 214  
 <211> 16  
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 <223> Description of Artificial Sequence:variant 5  
       tyrosine kinase family portion of catalytic domain  
  
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 <210> 215  
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<220>  
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         tyrosine kinase family portion of catalytic domain

<400> 215  
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<210> 216  
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<220>  
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<400> 216  
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<210> 217  
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         tyrosine kinase family portion of catalytic domain

<400> 217  
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<210> 218  
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<400> 218  
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 1                  5                  10                  15

<210> 219  
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<220>  
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         tyrosine kinase family portion of catalytic domain

<400> 219  
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<210> 220  
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<220>  
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tyrosine kinase family portion of catalytic domain

<400> 220  
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1 5 10 15

<210> 221  
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<220>  
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tyrosine kinase family portion of catalytic domain

<400> 221  
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<210> 222  
<211> 16  
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<220>  
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tyrosine kinase family portion of catalytic domain

<400> 222  
Met Gly Tyr Val His Arg Asp Leu Ala Ala Arg Asn Ile Leu Val Asn  
1 5 10 15

<210> 223  
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<220>  
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tyrosine kinase family portion of catalytic domain

<400> 223  
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<210> 224  
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<220>  
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 tyrosine kinase family portion of catalytic domain

<400> 224  
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 1 5 10 15

<210> 225  
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 <212> DNA  
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<220>  
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 tyrosine kinase family portion of catalytic domain

<400> 225  
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<210> 226  
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<220>  
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 tyrosine kinase family portion of catalytic domain

<400> 226  
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 1 5 10 15

<210> 227  
 <211> 48  
 <212> DNA  
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<220>  
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 tyrosine kinase family portion of catalytic domain

<400> 227  
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<210> 228  
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<220>  
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 tyrosine kinase family portion of catalytic domain

<400> 228  
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 1 5 10 15

<210> 229  
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       tyrosine kinase family portion of catalytic domain  
  
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 1                  5                  10                  15  
  
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       tyrosine kinase family portion of catalytic domain  
  
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       tyrosine kinase family portion of catalytic domain  
  
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<210> 234  
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<220>  
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         tyrosine kinase family portion of catalytic domain

<400> 234  
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 1                      5                      10                      15

<210> 235  
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<220>  
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         tyrosine kinase family portion of catalytic domain

<400> 235  
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<210> 236  
 <211> 16  
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<220>  
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         tyrosine kinase family portion of catalytic domain

<400> 236  
 Lys Asn Phe Val His Arg Asp Leu Ala Ala Arg Asn Val Leu Leu Val  
 1                      5                      10                      15

<210> 237  
 <211> 48  
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<220>  
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         tyrosine kinase family portion of catalytic domain

<400> 237  
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<210> 238  
 <211> 16  
 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence:variant 5  
       tyrosine kinase family portion of catalytic domain  
  
 <400> 238  
 Ser Asn Phe Val His Arg Asp Leu Ala Ala Arg Asn Val Leu Leu Val  
 1                  5                  10                  15

<210> 239  
 <211> 48  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:variant 5  
       tyrosine kinase family portion of catalytic domain

<400> 239  
 cagaattaca tccaccggga cctggccgcc aggaacatcc tcgtcggg 48

<210> 240  
 <211> 16  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:variant 5  
       tyrosine kinase family portion of catalytic domain

<400> 240  
 Gln Asn Tyr Ile His Arg Asp Leu Ala Ala Arg Asn Ile Leu Val Gly  
 1                  5                  10                  15

<210> 241  
 <211> 48  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:variant 5  
       tyrosine kinase family portion of catalytic domain

<400> 241  
 cagcgcgttg tgcaccggga cttggccgcc cggaacgtgc tcgtggac 48

<210> 242  
 <211> 16  
 <212> PRT  
 <213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:variant 5  
tyrosine kinase family portion of catalytic domain

<400> 242  
Gln Arg Val Val His Arg Asp Leu Ala Ala Arg Asn Val Leu Val Asp  
1 5 10 15

<210> 243  
<211> 48  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:variant 5  
tyrosine kinase family portion of catalytic domain

<400> 243  
cggaactaca ttcacagaga tctggctgcc agaaatgtcc tcgttggt 48

<210> 244  
<211> 16  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:variant 5  
tyrosine kinase family portion of catalytic domain

<400> 244  
Arg Asn Tyr Ile His Arg Asp Leu Ala Ala Arg Asn Val Leu Val Gly  
1 5 10 15

<210> 245  
<211> 48  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:variant 5  
tyrosine kinase family portion of catalytic domain

<400> 245  
aagaatttca tccatagaga tcttgcagct cgtaactgcc tagtgga 48

<210> 246  
<211> 16  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:variant 5  
tyrosine kinase family portion of catalytic domain

<400> 246  
Lys Asn Phe Ile His Arg Asp Leu Ala Ala Arg Asn Cys Leu Val Gly  
1 5 10 15

<210> 247  
 <211> 48  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence:variant 5  
         tyrosine kinase family portion of catalytic domain  
  
 <400> 247  
 aacagcttca tccacagaga tctggctgcc agaaattgtc tagtaagt 48  
  
 <210> 248  
 <211> 16  
 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence:variant 5  
         tyrosine kinase family portion of catalytic domain  
  
 <400> 248  
 Asn Ser Phe Ile His Arg Asp Leu Ala Ala Arg Asn Cys Leu Val Ser  
 1                    5                    10                    15  
  
 <210> 249  
 <211> 48  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence:variant 5  
         tyrosine kinase family portion of catalytic domain  
  
 <400> 249  
 aatggctata ttcataggga tttggcggca aggaattggtt tggtcagt 48  
  
 <210> 250  
 <211> 16  
 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence:variant 5  
         tyrosine kinase family portion of catalytic domain  
  
 <400> 250  
 Asn Gly Tyr Ile His Arg Asp Leu Ala Ala Arg Asn Cys Leu Val Ser  
 1                    5                    10                    15  
  
 <210> 251  
 <211> 48  
 <212> DNA  
 <213> Artificial Sequence



<220>  
 <223> Description of Artificial Sequence:variant 5  
         tyrosine kinase family portion of catalytic domain  
  
 <400> 251  
 gcatgtgtca tccacagaga cttggctgcc agaaattggt tggtggga 48  
  
 <210> 252  
 <211> 16  
 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence:variant 5  
         tyrosine kinase family portion of catalytic domain  
  
 <400> 252  
 Ala Cys Val Ile His Arg Asp Leu Ala Ala Arg Asn Cys Leu Val Gly  
 1                   5                   10                   15  
  
 <210> 253  
 <211> 48  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence:variant 5  
         tyrosine kinase family portion of catalytic domain  
  
 <400> 253  
 caccaattca tacaccggga cttggctgct cgtaactgct tggtggac 48  
  
 <210> 254  
 <211> 16  
 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence:variant 5  
         tyrosine kinase family portion of catalytic domain  
  
 <400> 254  
 His Gln Phe Ile His Arg Asp Leu Ala Ala Arg Asn Cys Leu Val Asp  
 1                   5                   10                   15  
  
 <210> 255  
 <211> 48  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence:variant 5  
         tyrosine kinase family portion of catalytic domain  
  
 <400> 255  
 aagcagttcc ttcaccgaga cctggcagct cgaaactggt tggtaaac 48

<210> 256  
 <211> 16  
 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence:variant 5  
       tyrosine kinase family portion of catalytic domain  
  
 <400> 256  
 Lys Gln Phe Leu His Arg Asp Leu Ala Ala Arg Asn Cys Leu Val Asn  
 1                  5                  10                  15

<210> 257  
 <211> 48  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:variant 5  
       tyrosine kinase family portion of catalytic domain

<400> 257  
 cacaattatg tccaccggga cctggctgcc agaaacatct tggatgaat 48

<210> 258  
 <211> 16  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:variant 5  
       tyrosine kinase family portion of catalytic domain

<400> 258  
 His Asn Tyr Val His Arg Asp Leu Ala Ala Arg Asn Ile Leu Val Asn  
 1                  5                  10                  15

<210> 259  
 <211> 48  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:variant 6  
       tyrosine kinase family portion of catalytic domain

<400> 259  
 aggaagtca tccacaaaga cctggctgcc aggaactgtg tcattgat 48

<210> 260  
 <211> 16  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:variant 6  
 tyrosine kinase family portion of catalytic domain

<400> 260  
 Arg Glu Val Ile His Lys Asp Leu Ala Ala Arg Asn Cys Val Ile Asp  
 1 5 10 15

<210> 261  
 <211> 48  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:variant 6  
 tyrosine kinase family portion of catalytic domain

<400> 261  
 aaccgcttttg tgcataagga cttggctgcg cgtaactgcc tggtcagt 48

<210> 262  
 <211> 16  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:variant 6  
 tyrosine kinase family portion of catalytic domain

<400> 262  
 Asn Arg Phe Val His Lys Asp Leu Ala Ala Arg Asn Cys Leu Val Ser  
 1 5 10 15

<210> 263  
 <211> 48  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:variant 6  
 tyrosine kinase family portion of catalytic domain

<400> 263  
 cacttcttttg tccacaagga cttgacgct cgcaatattt taatcgga 48

<210> 264  
 <211> 16  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:variant 6  
 tyrosine kinase family portion of catalytic domain

<400> 264  
 His Phe Phe Val His Lys Asp Leu Ala Ala Arg Asn Ile Leu Ile Gly  
 1 5 10 15

<210> 265  
 <211> 48  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence:variant 7  
       tyrosine kinase family portion of catalytic domain  
  
 <400> 265  
 aatcacttca tccacaggga tattgccgcc cggaactgcc tgctgagc 48  
  
 <210> 266  
 <211> 16  
 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence:variant 7  
       tyrosine kinase family portion of catalytic domain  
  
 <400> 266  
 Asn His Phe Ile His Arg Asp Ile Ala Ala Arg Asn Cys Leu Leu Ser  
 1                  5                  10                  15  
  
 <210> 267  
 <211> 48  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence:variant 7  
       tyrosine kinase family portion of catalytic domain  
  
 <400> 267  
 aaccacttca tccaccgaga cattgctgcc agaaactgcc tcttgacc 48  
  
 <210> 268  
 <211> 16  
 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence:variant 7  
       tyrosine kinase family portion of catalytic domain  
  
 <400> 268  
 Asn His Phe Ile His Arg Asp Ile Ala Ala Arg Asn Cys Leu Leu Thr  
 1                  5                  10                  15  
  
 <210> 269  
 <211> 54  
 <212> DNA  
 <213> Artificial Sequence

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<220>
<223> Description of Artificial Sequence:variant 1
      semi-randomized oligonucleotide for tyrosine
      kinase family portion of catalytic domain

<220>
<221> modified_base
<222> (1)..(1)
<223> n = c modified by 5' phosphate

<400> 269
ncaggacgac aaaaagacht gygarggstg yaargghctt ttaggcttt tcgg
54

<210> 270
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:variant 2
      semi-randomized oligonucleotide for tyrosine
      kinase family portion of catalytic domain

<220>
<221> modified_base
<222> (1)..(1)
<223> n = c modified by 5' phosphate

<220>
<221> modified_base
<222> (37)..(37)
<223> n = g, a, c or t

<400> 270
ncaggacgac aaaaagwsyt gygarggbtg caarggnctt ttaggcttt tcgg
54

<210> 271
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:variant 3
      semi-randomized oligonucleotide for tyrosine
      kinase family portion of catalytic domain

<220>
<221> modified_base
<222> (1)..(1)
<223> n = c modified by 5' phosphate

<400> 271
ncaggacgac aaaaagacst gcgagggctg caaragycctt ttaggcttt tcgg
54

<210> 272
<211> 53
<212> DNA
<213> Artificial Sequence

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<220>  
 <223> Description of Artificial Sequence:variant 4  
 semi-randomized oligonucleotide for tyrosine  
 kinase family portion of catalytic domain

<220>  
 <221> modified\_base  
 <222> (1)..(1)  
 <223> n = c modified by 5' phosphate

<400> 272  
 ncaggacgac aaaaagcctg cracggctgc wsmggycctt ttaggctttt cgg 53

<210> 273  
 <211> 54  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:variant 5  
 semi-randomized oligonucleotide for tyrosine  
 kinase family portion of catalytic domain

<220>  
 <221> modified\_base  
 <222> (1)..(1)  
 <223> n = c modified by 5' phosphate

<400> 273  
 ncaggacgac aaaaagasct gtgayggstg caagggycctt ttaggctttt tcgg 54

<210> 274  
 <211> 53  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:variant 6  
 semi-randomized oligonucleotide for tyrosine  
 kinase family portion of catalytic domain

<220>  
 <221> modified\_base  
 <222> (1)..(1)  
 <223> n = c modified by 5' phosphate

<220>  
 <221> modified\_base  
 <222> (18)..(18)  
 <223> n = g, a, c or t

<400> 274  
 ncaggacgac aaaaagcntg ygarggvtgy aagggycctt ttaggctttt cgg 53

<210> 275  
 <211> 54  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:variant 7  
 semi-randomized oligonucleotide for tyrosine  
 kinase family portion of catalytic domain

<220>  
 <221> modified\_base  
 <222> (1)..(1)  
 <223> n = c modified by 5' phosphate

<220>  
 <221> modified\_base  
 <222> (19)..(19)  
 <223> n = g, a, c or t

<400> 275  
 ncaggacgac aaaaagacnt gtgarrgmtg caaggghctt tttaggcttt tcgg 54

<210> 276  
 <211> 54  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:variant 8  
 semi-randomized oligonucleotide for tyrosine  
 kinase family portion of catalytic domain

<220>  
 <221> modified\_base  
 <222> (1)..(1)  
 <223> n = c modified by 5' phosphate

<400> 276  
 ncaggacgac aaaaagacht gtggvagctg yaargtyctt tttaggcttt tcgg 54

<210> 277  
 <211> 53  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:variant 9  
 semi-randomized oligonucleotide for tyrosine  
 kinase family portion of catalytic domain

<220>  
 <221> modified\_base  
 <222> (1)..(1)  
 <223> n = c modified by 5' phosphate

<400> 277  
 ncaggacgac aaaaagtcst gygargshtg yaargccttt ttaggccttt cgg 53

<210> 278  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:adapter  
 oligonucleotide Univ-1(FseI)

<400> 278  
 cttttttgtcg tcctggccgg 20

<210> 279  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:adapter  
 oligonucleotide Univ-2(AscI)

<220>  
 <221> modified\_base  
 <222> (1)..(1)  
 <223> n = c modified by 5' phosphate

<400> 279  
 ngcgccgaaa agcctaataaa g 21

<210> 280  
 <211> 569  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:humanU6/murine U6 opposing  
 promoter cassette, human U6 and murine U6 promoters between  
 TATA box and transcription start site modified to contain  
 FseI and AscI restriction sites

<400> 280  
 ggatccaagc ttaagggtcgg gcaggaagag ggcctatttc ccatgattcc ttcattatttg 60  
 catatacgat acaaggctgt tagagagata attagaatta atttgactgt aaacacaaaag 120  
 atatttagtac aaaatacgtg acgtagaaag taataatttc ttgggtagtt tgcagtttta 180  
 aaattatgtt ttaaaatgga ctatcatatg cttaccgtaa cttgaaagta tttcgatttc 240  
 ttggctttat atatcggccg gcctcgaggc gcgccatatt tatagtctca aaacacacaa 300  
 ttactttaca gttaggggtga gtttcctttt gtgctgtttt ttaaaataat aatttagtat 360  
 ttgtatctct tatagaaatc caagcctatc atgtaaaatg tagctagtat taaaaagaac 420  
 agattatctg tcttttatcg cacattaagc ctctatagtt actaggaaat attatatgca 480  
 aattaaccgg ggcaggggag tagccgagct tctcccacaa gtctgtgcga gggggccggc 540  
 gcgggcctag agatggcggc gtcggatcc 569

<210> 281  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:nuclear hormone  
 receptor family zinc finger domain (ZnF\_C4 domain)  
 consensus sequence (21 nt)



<220>  
<221> modified\_base  
<222> (1)..(21)  
<223> n = g, a, c or t

<400> 281  
dyntgyrrnr sntgywvrb n

21

<210> 282  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:tyrosine kinase  
family portion of catalytic domain variant 1  
signature motif

<400> 282  
His Arg Asp Leu Lys Ser Ser  
1 5

<210> 283  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:tyrosine kinase  
family portion of catalytic domain variant 2  
signature motif

<220>  
<221> MOD\_RES  
<222> (4)  
<223> Xaa = Leu, Val or Ile

<220>  
<221> MOD\_RES  
<222> (6)  
<223> Xaa = Ala or Val

<400> 283  
His Arg Asx Xaa Ala Xaa Arg  
1 5

<210> 284  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:tyrosine kinase  
family portion of catalytic domain variant 3  
signature motif

<220>  
 <221> MOD\_RES  
 <222> (6)  
 <223> Xaa = Ala or Ser  
  
 <400> 284  
 His Arg Asp Leu Arg Xaa Ala  
   1       /                   5  
  
 <210> 285  
 <211> 7  
 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence:tyrosine kinase  
       family portion of catalytic domain variant 4  
       signature motif  
  
 <220>  
 <221> MOD\_RES  
 <222> (2)  
 <223> Xaa = Arg or Lys  
  
 <400> 285  
 His Xaa Asp Leu Ala Thr Arg  
   1                           5  
  
 <210> 286  
 <211> 7  
 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence:tyrosine kinase  
       family portion of catalytic domain variant 5  
       signature motif  
  
 <400> 286  
 His Arg Asp Leu Ala Ala Arg  
   1                           5  
  
 <210> 287  
 <211> 7  
 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence:tyrosine kinase  
       family portion of catalytic domain variant 6  
       signature motif  
  
 <400> 287  
 His Lys Asp Leu Ala Ala Arg  
   1                           5

<210> 288  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:tyrosine kinase  
family portion of catalytic domain variant 7  
signature motif

<400> 288  
His Arg Asp Ile Ala Ala Arg  
1 5

<210> 289  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:nuclear hormone  
receptor family zinc finger domain (ZnF\_C4 domain)  
consensus sequence (19 nt)

<220>  
<221> modified\_base  
<222> (1)..(19)  
<223> n = g, a, c or t

<400> 289  
dyntgyrrnr sntgywvvr

19

<210> 290  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:tyrosine kinase  
family portion of catalytic domain variant 1  
consensus sequence

<400> 290  
caccgsgacc tyaagtccag c

21

<210> 291  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:tyrosine kinase  
family portion of catalytic domain variant 2  
consensus sequence

<400> 291  
caymgrracv tkgcgyscg d

21

<210> 292  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence:tyrosine kinase  
         family portion of catalytic domain variant 3  
         consensus sequence  
  
 <220>  
 <221> modified\_base  
 <222> (9)  
 <223> n = g, a, c or t  
  
 <400> 292  
 caymgngayc tbmgdkcdgc h 21  
  
 <210> 293  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence:tyrosine kinase  
         family portion of catalytic domain variant 4  
         consensus sequence  
  
 <400> 293  
 cacmrvgayy tvgchacvmg v 21  
  
 <210> 294  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence:tyrosine kinase  
         family portion of catalytic domain variant 5  
         consensus sequence  
  
 <220>  
 <221> modified\_base  
 <222> (1)..(21)  
 <223> n = g, a, c or t  
  
 <400> 294  
 caymgngayy tngcngcnmg n 21  
  
 <210> 295  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence:tyrosine kinase  
         family portion of catalytic domain variant 6  
         consensus sequence

<400> 295  
 cayaargacy tkgcwgcbbmg b 21

<210> 296  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:tyrosine kinase  
 family portion of catalytic domain variant 7  
 consensus sequence

<400> 296  
 cacmrgaya ttgcygccmg r 21

<210> 297  
 <211> 7  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:nuclear hormone  
 receptor family zinc finger domain (ZnF\_C4 domain)  
 variant 1 signature motif

<400> 297  
 Thr Cys Glu Gly Cys Lys Gly  
 1 5

<210> 298  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:nuclear hormone  
 receptor family zinc finger domain (ZnF\_C4 domain)  
 variant 1 consensus sequence

<400> 298  
 achtgygarg gstgyaargg h 21

<210> 299  
 <211> 7  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:nuclear hormone  
 receptor family zinc finger domain (ZnF\_C4 domain)  
 variant 2 signature motif

<400> 299  
 Ser Cys Glu Gly Cys Lys Gly  
 1 5

<210> 300  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:nuclear hormone  
receptor family zinc finger domain (ZnF\_C4 domain)  
variant 2 consensus sequence

<220>  
<221> modified\_base  
<222> (21)  
<223> n = g, a, c or t

<400> 300  
wsytgygarg gbtgcaargg n

21

<210> 301  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:nuclear hormone  
receptor family zinc finger domain (ZnF\_C4 domain)  
variant 3 signature motif

<400> 301  
Thr Cys Glu Gly Cys Lys Ser  
1 5

<210> 302  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:nuclear hormone  
receptor family zinc finger domain (ZnF\_C4 domain)  
variant 3 consensus sequence

<400> 302  
acstgcgagg gctgcaarag y

21

<210> 303  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:nuclear hormone  
receptor family zinc finger domain (ZnF\_C4 domain)  
variant 4 signature motif

<400> 303  
Ala Cys Asx Gly Cys Ser Gly  
1 5

<210> 304  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence:nuclear hormone  
 receptor family zinc finger domain (ZnF\_C4 domain)  
 variant 4 consensus sequence  
  
 <400> 304  
 gcctgcracg gctgcwsmgg y 21  
  
 <210> 305  
 <211> 7  
 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence:nuclear hormone  
 receptor family zinc finger domain (ZnF\_C4 domain)  
 variant 5 signature motif  
  
 <220>  
 <221> MOD\_RES  
 <222> (1)  
 <223> Xaa = Thr or Ser  
  
 <400> 305  
 Xaa Cys Asp Gly Cys Lys Gly  
 1 5  
  
 <210> 306  
 <211> 21  
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